

REMARKS

The claims are amended in an effort to place the application in condition for allowance. Upon acceptance of the arguments presented herein concerning the
5 limitation of the "emitter including an enlarged portion located laterally away from the collector and the base," the applicant requests that all remaining claims be allowed.

If the examiner readdresses this limitation in a future Office action, the applicant requests that such Office action be made non-final.

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1. Rejection of claims 1-5, 8-9, 11-16 under 35 U.S.C. 103(a) as being unpatentable over Sato (US 5,349,239) in view of Li (US 5,696,466):

Claims 1-5, 8-9, 11, and 12 are cancelled without prejudice or disclaimer to the
15 merits thereof.

Claims 13 is amended to recite "an emitter including an enlarged portion located laterally away from the collector and the base". Such amendment is fully supported by the disclosure, and by claims 21 and 23. No new matter is entered by this amendment.

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In the previous Office action reply the applicant clearly stated what "laterally away" was meant to convey. To reiterate, "laterally away" is meant to convey "removed from in a sideways direction" wherein the sideways direction is in the plane of the substrate. Neither Sato nor Li teach or suggest this. Please see Items 3 and 4
25 below for more detailed arguments. In addition, since claim 13 is simply a method for manufacturing the devices of claims 21-26, this amendment should not warrant an additional search or new grounds for rejection.

Reconsideration of claims 13-16 is requested. Claims 14-16 are dependent on
30 claim 13 and should be allowed if claim 13 is allowed.

2. Rejection of claims 1, 6-7, 10, 13, and 17-20 under 35 U.S.C. 103(a) as being

unpatentable over Shirakawa (EP 1 077 494) in view of Li (US 5,696,466):

Claims 1, 6-7, 10, and 17-20 are cancelled without prejudice or disclaimer to the merits thereof.

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Reconsideration of claim 13 is requested in view of the arguments made in Items 1, 3, and 4.

3. Rejection of claims 21-22 and 25 under 35 U.S.C. 103(a) as being unpatentable over Sato (US 5,349,239) in view of Li (US 5,696,466):

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Claim 21 recites "the emitter including an enlarged portion located laterally away from the collector and the base".

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The applicant contends that the examiner has not demonstrated that either Sato or Li provide this limitation nor that it is obvious. If the examiner means to say that this limitation is taught or suggested by the cited art, the applicant requests that the examiner provide an explanation.

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In Sato, the emitter layer 5 is divided into four short strip-shaped finger portions 5a arranged in parallel, however, these short strip shaped finger portions 5a are located above or below the collector 8 (see Figs.1-3). That is, Sato's finger portions 5a are not located laterally away from the collector 8, the plain meaning of "laterally away" being taken as "removed from in a sideways direction" in the plane of the substrate 10.

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The plan view of Fig.1 of Sato shows clearly that the finger portions 5a are not located laterally away from the collector 8. In Li's Fig.5, the emitter appears to be below the collector rather than beside it. As such, the combination of Sato and Li does not teach or fairly suggest this limitation.

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In contrast, please consider the applicant's enlarged and clearly wholly laterally removed emitter 14b shown in Figs.1-5, which the recited limitation "laterally away" sufficiently describes. This limitation is significant because it allows the enlarged

emitter to readily dissipate large amounts of heat.

Reconsideration of claims 21-22 and 25 is requested in view of the above argument. Claims 22 and 25 are dependent on claim 21 and should be allowed if claim
5 21 is allowed.

4. Rejection of claims 23-24 and 26 under 35 U.S.C. 103(a) as being unpatentable over Shirakawa (EP 1 077 494) in view of Sato (US 5,349,239):

10 Claim 23 recites "the emitter including an enlarged portion located laterally away from the collector and the base".


Again, the applicant contends that the examiner has not demonstrated that either Shirakawa or Sato provide this limitation nor that it is obvious. If the examiner means
15 to say that this limitation is taught or suggested by the cited art, the applicant requests that the examiner provide an explanation.

Shirakawa teaches symmetrical devices in which the emitter 1 is basically above, but not laterally away from, the collector 3 and the base 2. The examiner has referred
20 to Fig.1B, however, the corresponding plan view of Fig.1A clearly shows that the center of the emitter 1, base 2, and collector 3 are coincident. The other embodiments of Shirakawa also teach such symmetry. Such symmetrical stacked arrangement is clearly not "laterally away". Please see the argument in Item 3 above regarding why Sato does not teach or suggest this limitation. As such, the combination of Shirakawa
25 and Sato does not teach or fairly suggest the "laterally away" limitation.

Again, this limitation is significant because it allows the enlarged emitter to readily dissipate large amounts of heat.

30 Reconsideration of claims 23-24 and 26 is requested in view of the above argument. Claims 24 and 26 are dependent on claim 23 and should be allowed if claim 23 is allowed.

Sincerely,

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Winston Hsu, Patent Agent No. 41,526
P.O. BOX 506
Merrifield, VA 22116
U.S.A.

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10 e-mail : winstonhsu@naipo.com.tw

(Please contact me if you need a telephone communication and I will return your call promptly.)